

## Claims

### ***We claim:***

1. A method for routing messages in a network, said method comprising the steps of

identifying a first one message of a first plurality of messages, said first plurality of messages having at least one first routing treatment in common;

recording said first routing treatment;

identifying a second one message of said first plurality of messages;

routing said second one message responsive to said first routing treatment.

2. A method as in claim 1, wherein

said first one message comprises a packet;

said first plurality of messages comprises a stream of packets associated with a selected source device and a selected destination device.

3. A method as in claim 2, wherein said stream of packets is associated with a first selected port number at said source device and a second selected port number at said destination device.

4. A method as in claim 1, wherein said first plurality of messages comprises a message flow.

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2           5.    A method as in claim 1, wherein said first plural-  
3   ity of messages comprises an ordered sequence, and said first one  
4   message has a selected position in said ordered sequence.

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6           6.    A method as in claim 1, wherein said first plural-  
7   ity of messages comprises a stream of messages between a selected  
8   pair of transport access points.

9  
10          7.    A method as in claim 1, wherein said step of re-  
11   cording comprises building an entry in a flow cache.

12  
13          8.    A method as in claim 1, comprising the step of  
14   identifying a message of a second plurality of messages, said  
15   second plurality of messages having at least one second routing  
16   treatment in common, said second routing treatment differing from  
17   said first routing treatment.

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19          9.    A method as in claim 1, wherein said routing  
20   treatment comprises access control information for said first one  
21   message.

22  
23          10.   A method as in claim 1, wherein said routing  
24   treatment comprises a destination output port for routing said  
25   first one message.

26  
27          11.   A method as in claim 1, comprising the steps of  
28   recording information about said first plurality of  
29   messages; and

1           transmitting said information to at least one selected  
2 device on said network.

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4           12. A method as in claim 11, wherein said information  
5 comprises

6           a transmission time for an initial one message in said  
7 plurality of messages;

8           a transmission time for a most recent one message in  
9 said plurality of messages;

10          a cumulative count of bytes in said plurality of mes-  
11 sages; or

12          a cumulative count of said one messages in said plural-  
13 ity of messages.

14

15           13. A method as in claim 11, comprising the steps of  
16 receiving said information at said selected device on  
17 said network;

18          recording said information in a database at said se-  
19 lected device; and

20          making said information available to a second device on  
21 said network.

22

23           14. A system for routing packets in a network, said  
24 system comprising

25          means for receiving a stream of packets, said stream of  
26 packets comprising a plurality of message flows, each said packet  
27 being associated with one selected message flow, each said mes-  
28 sage flow having at least one routing treatment in common;

29

1 means for associating packets with a first one of said  
2 message flows;

3 a flow cache having an entry associated with said first  
4 one message flow;

5 means for routing packets responsive to entries in said  
6 flow cache.

7

8 15. A system as in claim 14, wherein said entry com-  
9 prises access control information.

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11 16. A system as in claim 15, wherein said entry com-  
12 prises a destination output port for routing packets.

13

14 17. A system as in claim 14, comprising means for  
15 transmitting information responsive at least one said entry to at  
16 least one selected device on said network.

17

18 18. A system as in claim 17, wherein said information  
19 comprises

20 a transmission time for an initial one message in said  
21 plurality of messages;

22 a transmission time for a most recent one message in  
23 said plurality of messages;

24 a cumulative count of bytes in said plurality of mes-  
25 sages; or

26 a cumulative count of said one messages in said plural-  
27 ity of messages.

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